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=> d his

     (FILE 'HOME' ENTERED AT 14:51:49 ON 22 NOV 2009)

     FILE 'CAPLUS' ENTERED AT 14:52:04 ON 22 NOV 2009
L1           39 S BRUTON G?/AU
L2          149 S HUXLEY A?/AU
L3           93 S ORLEK B?/AU
L4            4 S L1 AND L2 AND L3
L5           87 S RANA K?/AU
L6            1 S L4 AND L5
                SELECT RN L6 1-

     FILE 'REGISTRY' ENTERED AT 14:52:49 ON 22 NOV 2009
L7          138 S E1-138
L8           69 S L7 AND 7/SZ

     FILE 'CAPLUS' ENTERED AT 14:55:26 ON 22 NOV 2009
L9          302 S L8
L10         ANALYZE L9 1- RN HIT :      69 TERMS

     FILE 'REGISTRY' ENTERED AT 14:57:44 ON 22 NOV 2009
L11           1 S 112275-50-0/RN
L12           1 S 59039-61-1/RN
L13          67 S L8 NOT (L11 OR L12)

     FILE 'CAPLUS' ENTERED AT 15:00:47 ON 22 NOV 2009
L14          11 S L13
L15          11 S L14 NOT (2009/SO OR 2008/SO OR 2007/SO OR 2006/SO OR 2005/SO)

=> d ibib abs hitstr total
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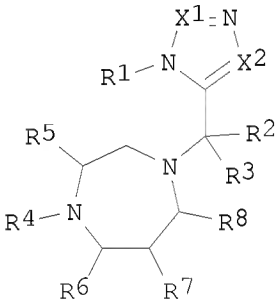
L15 ANSWER 1 OF 11 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2009:946262 CAPLUS
DOCUMENT NUMBER: 151:245703
TITLE: Diazepanes as histamine H3 receptor antagonists and their preparation, and use in the treatment of diseases
INVENTOR(S): Davenport, Adam James; Hallett, David James; Stimson, Christopher Charles; Corsi, Massimo; Gemkow, Mark
PATENT ASSIGNEE(S): Evotec Neurosciences GmbH, Germany
SOURCE: PCT Int. Appl., 149pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2009095394	A1	20090806	WO 2009-EP50920	20090128

W: AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW

RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MK, MT, NL, NO, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

PRIORITY APPLN. INFO.: EP 2008-150976 A 20080201
OTHER SOURCE(S): MARPAT 151:245703
GI



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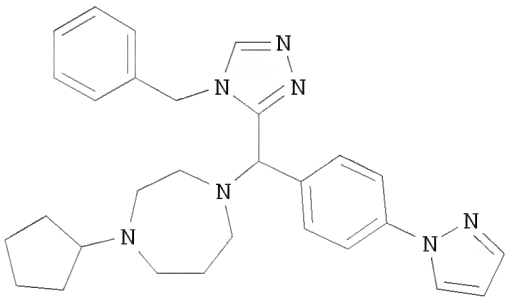

II

AB The invention relates to compds. of formula I that are useful as Histamine H3 receptor antagonists. The invention also relates to pharmaceutical compns., the preparation of such compds. as well as the production and use as medicament. Compds. of formula I wherein X1 and X2 are independently N and CH; R1 is (un)substituted C1-4 alkyl, (un)substituted C2-4 alkenyl, (un)substituted C2-4 alkenyl, (un)substituted aryl, etc.; R2 and R3 are independently H, halo, and (un)substituted C1-6 alkyl; R2R3 taken together

to form a ring; R5 is C1-5 alkyl, C2-5 alkenyl, C2-5 alkynyl, C3-5 cycloalkyl, etc.; R5, R6, R7 and R8 are independently H, (un)substituted C1-5 alkyl, (un)substituted C2-5 alkenyl, and (un)substituted C2-5 alkynyl; R4R5 or R4R6 taken together to form a (un)substituted 3- to 7-membered heterocyclic ring; and pharmaceutically acceptable salts, prodrugs, and metabolites thereof, are claimed. Example compound II was prepared by a general procedure (procedure given). All the invention compds. were evaluated for their H3 antagonistic activity. From the assay, it was determined that compound II exhibited IC50 value < 100 nM.

IT 851048-48-1P 851049-21-3P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(intermediate; preparation of diazepanes as histamine H3 receptor antagonists useful in treatment and prevention of histamine H3 receptor-mediated diseases)

RN 851048-48-1 CAPLUS
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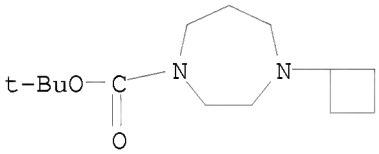
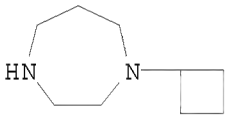


RN 851049-21-3 CAPLUS
CN 1H-1,4-Diazepine, 1-cyclobutylhexahydro- (CA INDEX NAME)



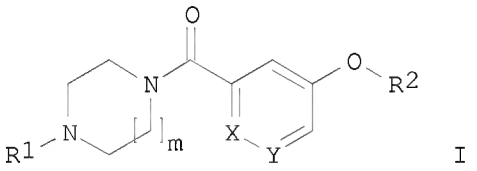
REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L15 ANSWER 2 OF 11 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2009:615807 CAPLUS
DOCUMENT NUMBER: 150:539760
TITLE: Preparation of substituted pyridyl amide compounds as modulators of the histamine H3 receptor
INVENTOR(S): Letavic, Michael A.; Ly, Kiev S.
PATENT ASSIGNEE(S): USA
SOURCE: U.S. Pat. Appl. Publ., 15pp.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 20090131417	A1	20090521	US 2008-272355	20081117
WO 2009067406	A1	20090528	WO 2008-US83780	20081117

W: AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, NO, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

PRIORITY APPLN. INFO.: US 2007-989244P P 20071120
ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT
OTHER SOURCE(S): MARPAT 150:539760
GI



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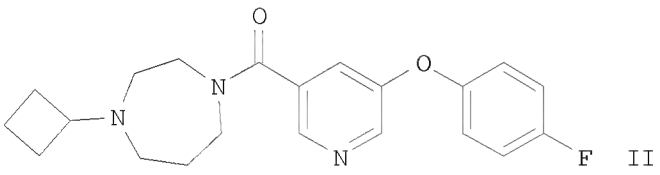


II

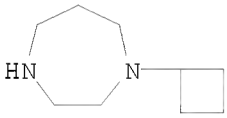
AB The title compds. I [R1 = alkyl or cycloalkyl; m = 1-2; R2 = alkyl, Ph, 6-membered monocyclic heteroaryl, etc.; one of X and Y = N and the other =

CH] which are histamine H3 receptor modulators useful in the treatment of histamine H3 receptor-mediated diseases, were prepared E.g., a multi-step synthesis of II, starting from 5-bromonicotinic acid and 1-cyclobutyl-[1,4]diazepane.2HCl, was given. Exemplified compds. were tested for H3 receptor binding (data given). For example, II showed Ki of 3.6 nM. Pharmaceutical composition comprising the compound I is disclosed.

IT 851048-49-2
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of substituted pyridyl amide compds. as modulators of the histamine H3 receptor)

RN 851048-49-2 CAPLUS

CN 1H-1,4-Diazepine, 1-cyclobutylhexahydro-, hydrochloride (1:2) (CA INDEX NAME)



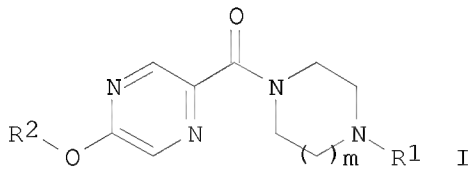
● 2 HCl

L15 ANSWER 3 OF 11 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2009:615765 CAPLUS
DOCUMENT NUMBER: 150:539744
TITLE: Preparation of substituted pyrazinyl amide compounds as modulators of the histamine h3 receptor
INVENTOR(S): Allison, Brett D.; Grice, Cheryl A.; Letavic, Michael A.
PATENT ASSIGNEE(S): USA
SOURCE: U.S. Pat. Appl. Publ., 15pp.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 20090131416	A1	20090521	US 2008-272314	20081117
WO 2009067405	A1	20090528	WO 2008-US83775	20081117

W: AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, NO, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

PRIORITY APPLN. INFO.: US 2007-989236P P 20071120
ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT
OTHER SOURCE(S): MARPAT 150:539744
GI



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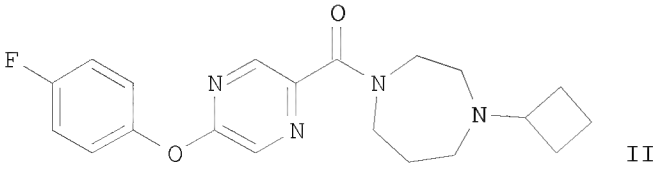


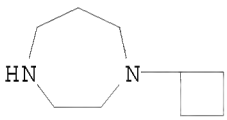
II

AB Title compds. I [R1 = alkyl or a saturated cycloalkyl; m = 1-2; R2 = (un)substituted Ph, cycloalkyl, or heterocycloalkyl], and their pharmaceutically acceptable salt, pharmaceutically acceptable prodrugs, or pharmaceutically active metabolites, are prepared and disclosed as histamine H3 receptor modulators useful in the treatment of histamine H3 receptor-mediated diseases.. Thus, e.g., II was prepared by condensation reaction of 4-fluorophenol with (5-chloropyrazin-2-yl)(4-cyclobutyl-[1,4]diazepan-1-yl)methanone which was prepared in 5 steps from 2-acetylfuran. Selected compds. of the invention were evaluated for their binding activities to the cloned human H3 receptors in SK-N-MC cells, e.g., II exhibited Ki value of 2.4 nM.

IT 851048-49-2, 1-Cyclobutyl-[1,4]diazepane dihydrochloride
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of substituted pyrazinyl amide compds. as modulators of histamine H3 receptor)

RN 851048-49-2 CAPLUS

CN 1H-1,4-Diazepine, 1-cyclobutylhexahydro-, hydrochloride (1:2) (CA INDEX NAME)

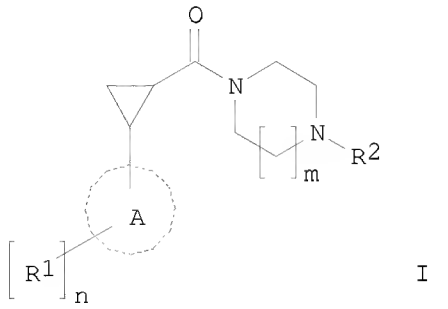


●2 HCl

L15 ANSWER 4 OF 11 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2009:239511 CAPLUS
DOCUMENT NUMBER: 150:260226
TITLE: Preparation of cyclopropanecarboxamides as histamine H3 receptor ligands
INVENTOR(S): Arnold, James; Brugel, Todd Andrew; Edwards, Phil; Griffin, Andrew; Groblewski, Thierry; Labrecque, Denis; Throner, Scott; Wesolowski, Steven
PATENT ASSIGNEE(S): Astrazeneca AB, Swed.; Astrazeneca UK Limited
SOURCE: PCT Int. Appl., 122pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2009024823	A2	20090226	WO 2008-GB50723	20080820
WO 2009024823	A3	20090416		
W: AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW			
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, NO, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AP, EA, EP, OA			
US 20090076020	A1	20090319	US 2008-195454	20080821
PRIORITY APPLN. INFO.:			US 2007-957181P P	20070822

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT
OTHER SOURCE(S): MARPAT 150:260226
GI



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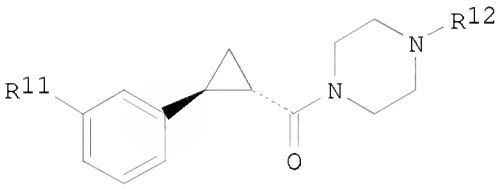


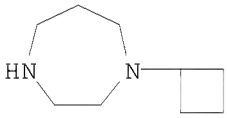
II

AB Title compds. I [A = aryl, heteroaryl, cycloalkyl, etc.; m = 1 or 2; n = 1-5; R1 = H, aryl, heteroaryl, etc.; R2 = aryl, heteroaryl, cycloalkyl, etc.] or diastereomers, enantiomers or pharmaceutically acceptable salts thereof were prepared For example, reaction of trans-2-phenyl-1-cyclopropanecarbonyl chloride with 1-isopropylpiperazine afforded compound II [R11 = H; R12 = isopropyl] in 82% yield. In histamine H3 receptor binding assays, the IC50 of compound II [R11 = CN; R12 = cyclobutyl] was 0.834 nM. Compds. I are claimed useful for the treatment of nacrolepsy, obesity, etc.

IT 851048-49-2
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of cyclopropanecarboxamides as histamine H3 receptor ligands)

RN 851048-49-2 CAPLUS

CN 1H-1,4-Diazepine, 1-cyclobutylhexahydro-, hydrochloride (1:2) (CA INDEX NAME)



● 2 HCl

L15 ANSWER 5 OF 11 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2008:1106226 CAPLUS
DOCUMENT NUMBER: 149:355745
TITLE: Preparation of tetrahydroisoquinoline compounds as modulators of the histamine H3 receptor
INVENTOR(S): Grice, Cheryl A.; Letavic, Michael A.; Santillan, Alejandro, Jr.; Schwarz, Kimberly L.
PATENT ASSIGNEE(S): Janssen Pharmaceutica N.V., Belg.
SOURCE: PCT Int. Appl., 136pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2008109336	A1	20080912	WO 2008-US55285	20080228
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RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, NO, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
AU 2008223145	A1	20080912	AU 2008-223145	20080228
CA 2679735	A1	20080912	CA 2008-2679735	20080228
US 20090099158	A1	20090416	US 2008-39162	20080228
PRIORITY APPLN. INFO.:			US 2007-892324P P	20070301
			WO 2008-US55285 W	20080228

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT
OTHER SOURCE(S): MARPAT 149:355745
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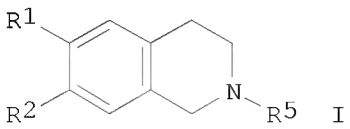

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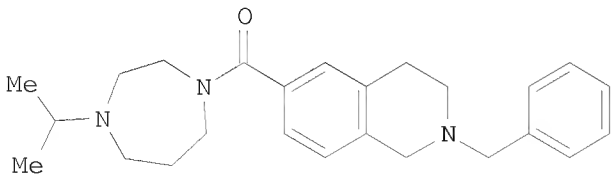


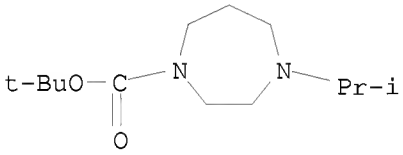
II

AB The title compds. I [one of R1 and R2 is LNR3R4 and the other is H; L = C(O), CH2; NR3R4 = (un)substituted pyrrolidino, pyrrolopyrrolyl, pyridopyrazinyl, etc.; R5 = H, alkyl, cycloalkyl, etc.] which are histamine H3 receptor modulators useful in the treatment of histamine H3 receptor-mediated diseases, were prepared and claimed. E.g., a multi-step synthesis of II, starting from N-Boc-homopiperazine and acetone, was given. Exemplified compds. I were tested for binding to the cloned human H3 receptors. For example, II showed Ki of 1 nM in this assay. Pharmaceutical compns. comprising the compound I alone or in combination with other therapeutic agents are disclosed.

IT 851048-46-9P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of tetrahydroisoquinoline compds. for treating histamine H3 receptor mediated diseases)

RN 851048-46-9 CAPLUS

CN 1H-1,4-Diazepine-1-carboxylic acid, hexahydro-4-(1-methylethyl)-, 1,1-dimethylethyl ester (CA INDEX NAME)



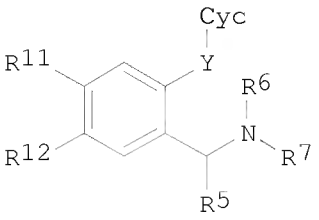
REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L15 ANSWER 6 OF 11 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2008:12128 CAPLUS
DOCUMENT NUMBER: 148:100642
TITLE: Preparation of substituted aminomethyl benzamides as histamine H3 receptor and serotonin transporter modulators
INVENTOR(S): Allison, Brett; Carruthers, Nicholas I.; Curtis, Michael P.; Keith, John M.; Letavic, Michael A.; Stocking, Emily M.
PATENT ASSIGNEE(S): Janssen Pharmaceutica N.V., Belg.
SOURCE: PCT Int. Appl., 73pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2008002818	A1	20080103	WO 2007-US71739	20070621
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW				
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
AU 2007265240	A1	20080103	AU 2007-265240	20070621
CA 2656083	A1	20080103	CA 2007-2656083	20070621
US 20080045508	A1	20080221	US 2007-766153	20070621
EP 2046747	A1	20090415	EP 2007-798863	20070621
R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, LV, MC, MT, NL, PL, PT, RO, SE, SI, SK, TR, AL, BA, HR, MK, RS				
CN 101511790	A	20090819	CN 2007-80032397	20090302

PRIORITY APPLN. INFO.:	US 2006-806167P	P	20060629
	WO 2007-US71739	W	20070621

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT
OTHER SOURCE(S): CASREACT 148:100642; MARPAT 148:100642
GI



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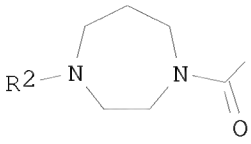

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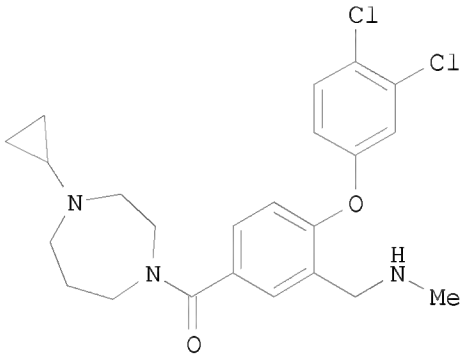


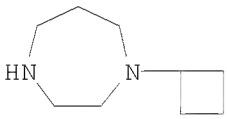
III

AB The title compds. I [one of R11 and R12 = II and the other = H; Y = O, OCH2, S, SO, SO2; R2 = H, (un)substituted alkyl, cycloalkyl; R5 = H, alkyl; R6, R7 = H, alkyl, cycloalkyl, etc.; or NR6R7 = (un)substituted saturated monocyclic heterocycloalkyl; Cyc = (un)substituted Ph or monocyclic carbon-linked heteroaryl] that are histamine H3 receptor and/or serotonin transporter modulators useful in the treatment of histamine H3 receptor- and/or serotonin-mediated diseases, were prepared E.g., a multi-step synthesis of III, starting from 5-bromo-2-fluorobenzaldehyde and 3,4-dichlorophenol, was given. Exemplified compds. I were tested in H3 receptor binding assay and rat brain SERT assay. For example, III showed Ki of 1.8 nM in human H3 assay and Ki of 9.1 nM in rat SERT assay. Pharmaceutical compns. comprising compound I alone or in combination with other therapeutic agent are disclosed.

IT 851049-21-3
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of substituted aminomethyl benzamides as histamine H3 receptor and serotonin transporter modulators for treating histamine H3 receptor- and serotonin-mediated diseases)

RN 851049-21-3 CAPLUS

CN 1H-1,4-Diazepine, 1-cyclobutylhexahydro- (CA INDEX NAME)



OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1 CITINGS)

REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L15 ANSWER 7 OF 11 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2008:10101 CAPLUS
DOCUMENT NUMBER: 148:100641
TITLE: Preparation of substituted benzamide modulators of the histamine H3 receptor
INVENTOR(S): Allison, Brett D.; Carruthers, Nicholas I.; Letavic, Michael A.; Santillan, Alejandro, Jr.; Shah, Chandravadan R.
PATENT ASSIGNEE(S): Janssen Pharmaceutica N.V., Belg.
SOURCE: PCT Int. Appl., 64 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2008002816	A1	20080103	WO 2007-US71732	20070621
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW				
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
AU 2007265238	A1	20080103	AU 2007-265238	20070621
CA 2656072	A1	20080103	CA 2007-2656072	20070621
US 20080045507	A1	20080221	US 2007-766144	20070621
EP 2038269	A1	20090325	EP 2007-812229	20070621
R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, LV, MC, MT, NL, PL, PT, RO, SE, SI, SK, TR, AL, BA, HR, MK, RS				
CN 101511807	A	20090819	CN 2007-80032144	20090227

PRIORITY APPLN. INFO.: US 2006-806164P P 20060629
WO 2007-US71732 W 20070621
ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT
OTHER SOURCE(S): CASREACT 148:100641; MARPAT 148:100641
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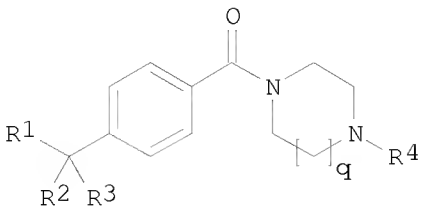

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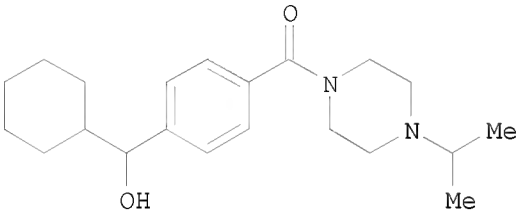


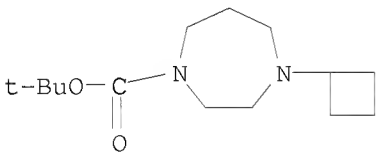
II

AB The title compds. I [R1 = H, alkyl, monocyclic cycloalkyl, Ph; R2 = H or Me; or R1 and R2 taken together form monocyclic cycloalkyl; R3 = H, OH, Me; or when R1 is not H or Ph, R2 and R3 taken together form a carbonyl; q = 1-2; R4 = alkyl, alkenyl, cycloalkyl, etc.; with the proviso] that are histamine H3 receptor modulators useful in the treatment of histamine H3 receptor-mediated diseases, were prepared E.g., a multi-step synthesis of II, starting with 4-carboxybenzaldehyde, was given. Exemplified compds. I were tested for binding to the cloned human and rat H3 receptors. For example, II showed Ki of 7 nM in the human H3 receptor binding assay. Pharmaceutical compns. comprising the compound I alone or in combination with other therapeutic agent were disclosed.

IT 851048-48-1P
RL: PRPH (Prophetic); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of substituted benzamides as histamine H3 receptor modulators for treating histamine H3 receptor-mediated diseases)

RN 851048-48-1 CAPLUS

CN 1H-1,4-Diazepine-1-carboxylic acid, 4-cyclobutylhexahydro-, 1,1-dimethylethyl ester (CA INDEX NAME)

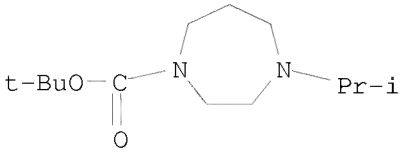


IT 851048-46-9P 851048-49-2P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of substituted benzamides as histamine H3 receptor modulators for treating histamine H3 receptor-mediated diseases)

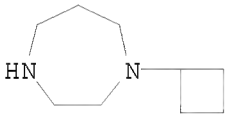
RN 851048-46-9 CAPLUS

CN 1H-1,4-Diazepine-1-carboxylic acid, hexahydro-4-(1-methylethyl)-,

1,1-dimethylethyl ester (CA INDEX NAME)



RN 851048-49-2 CAPLUS
CN 1H-1,4-Diazepine, 1-cyclobutylhexahydro-, hydrochloride (1:2) (CA INDEX NAME)



● 2 HCl

REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L15 ANSWER 8 OF 11 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2007:1396600 CAPLUS
DOCUMENT NUMBER: 148:54895
TITLE: Preparation of substituted pyridyl amide compounds as modulators of the histamine H3 receptor
INVENTOR(S): Keith, John M.; Letavic, Michael A.; Ly, Kiev S.; Mani, Neelakandha S.; Mills, John E.; Pandit, Chennagiri R.; Villani, Frank J.; Zhong, Hua
PATENT ASSIGNEE(S): Janssen Pharmaceutica N.V., Belg.
SOURCE: U.S. Pat. Appl. Publ., 46 pp.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
US 20070281923	A1	20071206	US 2007-753607		20070525
AU 2007256931	A1	20071213	AU 2007-256931		20070525
CA 2653940	A1	20071213	CA 2007-2653940		20070525
WO 2007143422	A2	20071213	WO 2007-US69723		20070525
WO 2007143422	A3	20080207			
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RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AP, EA, EP, OA					
EP 2032536	A2	20090311	EP 2007-797766		20070525
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JP 2009538928	T	20091112	JP 2009-513399		20070525
MX 2008015365	A	20081216	MX 2008-15365		20081201
NO 2008005029	A	20090128	NO 2008-5029		20081202
IN 2008KN04980	A	20090320	IN 2008-KN4980		20081208
KR 2009018670	A	20090220	KR 2008-731765		20081229
CN 101495456	A	20090729	CN 2007-80028496		20090201
PRIORITY APPLN. INFO.:			US 2006-803407P	P	20060530
			US 2006-823108P	P	20060822
			WO 2007-US69723	W	20070525

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT
OTHER SOURCE(S): CASREACT 148:54895; MARPAT 148:54895
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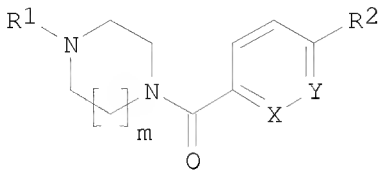

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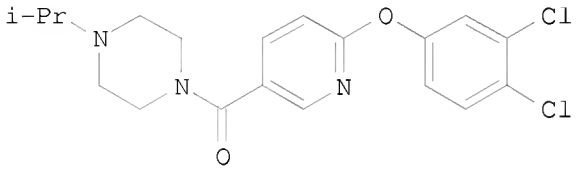


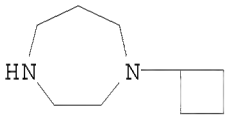
II

AB Title compds. I [R1 = alkyl or saturated monocyclic cycloalkyl; R2 = H or -Z-Ar; Ar = (un)substituted Ph or monocyclic heteroaryl; Z = O or S; X = N or CH; Y = N or CRa, wherein Ra = H, -Z-Ar, CN, CO2H, etc.; m = 1-2], and their pharmaceutically acceptable salts, prodrugs, or active metabolites thereof, are prepared and disclosed as modulators of the histamine H3 receptor. Thus, e.g., II was prepared by reacting 2,5-dibromopyridine with 3,4-dichlorophenol followed by coupling reaction with 1-isopropylpiperazine. All exemplar compds. were evaluated in human H3 receptor binding assay, e.g., II showed Ki value of 29 nM. As modulators of the histamine H3 receptor, I should prove useful in the treatment of histamine H3 receptor-mediated diseases, such as cognitive disorders, sleep disorders, psychiatric disorders, and other disorders.

IT 851049-21-3
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of substituted pyridyl amide compds. as modulators of the histamine H3 receptor)

RN 851049-21-3 CAPLUS

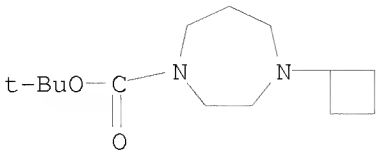
CN 1H-1,4-Diazepine, 1-cyclobutylhexahydro- (CA INDEX NAME)



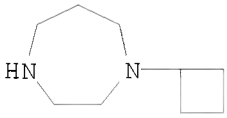
IT 851048-48-1P, 4-Cyclobutyl-[1,4]diazepane-1-carboxylic acid tert-butyl ester 851048-49-2P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of substituted pyridyl amide compds. as modulators of the histamine H3 receptor)

RN 851048-48-1 CAPLUS

CN 1H-1,4-Diazepine-1-carboxylic acid, 4-cyclobutylhexahydro-, 1,1-dimethylethyl ester (CA INDEX NAME)



RN 851048-49-2 CAPLUS
CN 1H-1,4-Diazepine, 1-cyclobutylhexahydro-, hydrochloride (1:2) (CA INDEX NAME)

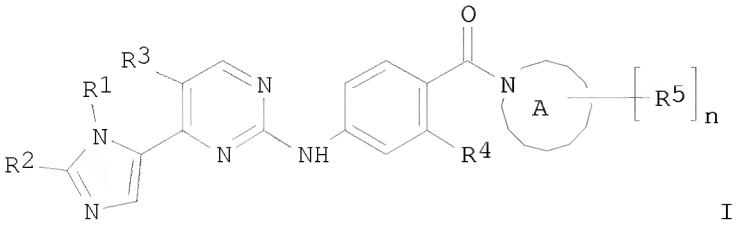


● 2 HCl

L15 ANSWER 9 OF 11 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2007:150717 CAPLUS
DOCUMENT NUMBER: 146:229372
TITLE: Preparation of imidazolyl-pyrimidine compounds as CDK2 inhibitors
INVENTOR(S): Andrews, David; Finlay, Maurice Raymond; Green, Clive; Jones, Clifford
PATENT ASSIGNEE(S): Astrazeneca AB, Swed.; Astrazeneca Uk Limited
SOURCE: PCT Int. Appl., 159pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
WO 2007015064	A1	20070208	WO 2006-GB2801		20060727
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW					
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM					
AU 2006274733	A1	20070208	AU 2006-274733		20060727
CA 2617170	A1	20070208	CA 2006-2617170		20060727
EP 1912974	A1	20080423	EP 2006-765122		20060727
R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, HR					
JP 2008542350	T	20081127	JP 2008-514205		20060727
JP 4278172	B2	20090610			
NO 2008000061	A	20080407	NO 2008-61		20080104
IN 2008DN00108	A	20080620	IN 2008-DN108		20080104
MX 2008001428	A	20080404	MX 2008-1428		20080129
KR 2008033450	A	20080416	KR 2008-704572		20080226
CN 101273031	A	20080924	CN 2006-80035603		20080326
US 20080280906	A1	20081113	US 2008-995159		20080507
JP 2009137990	A	20090625	JP 2009-3310		20090109
PRIORITY APPLN. INFO.:			GB 2005-15743	A	20050730
			GB 2005-20281	A	20051006
			GB 2005-26015	A	20051222
			GB 2006-8371	A	20060428
			JP 2008-514205	A3	20060727
			WO 2006-GB2801	W	20060727

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT
OTHER SOURCE(S): MARPAT 146:229372
GI



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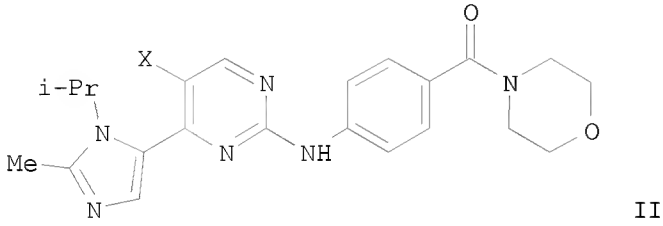


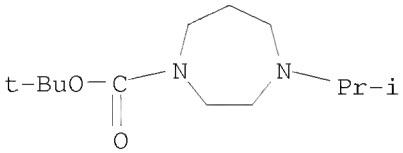
II

AB Title compds. I [R1 = Et, Pr, iso-Pr, etc.; R2 = Me, Et, iso-Pr, etc.; R3 = H or halo; R4 = H, ethynyl, halo, etc.; ring A = nitrogen-linked saturated ring which optionally contains an addnl. nitrogen, oxygen or sulfur atom; wherein 2 atoms of ring A, when ring A is a nitrogen-linked saturated ring, may optionally be connected by a one or two atom bridge.; and wherein if ring A contains an addnl. nitrogen atom that nitrogen may be optionally substituted by R7.; R5 = substituent on carbon and selected from halo, cyano, hydroxy, etc.; R7 = alkyl, alkanoyl, alkylsulfonyl, etc.; n = 0-2], pharmaceutically acceptable salts or in-vivo hydrolyzable ethers thereof were prepared For example, Pd(OAc)2 catalyzed coupling reaction of 5-fluoro-4-(3-isopropyl-2-methyl-3H-imidazol-4-yl)pyrimidin-2-ylamine, e.g., prepared from (2E)-3-dimethylamino-1-(1-isopropyl-2-methyl-1H-imidazol-5-yl)prop-2-en-1-one in 2 steps, with (4-iodophenyl)-morpholin-4-yl-methanone afforded compound II [X = F]. In CDK2 (cyclin-dependent kinase 2) inhibition assays, compound II [X = H] exhibited the IC50 value of 3 nM. Compds. I are claimed useful for the treatment of proliferative disorders.

IT 851048-46-9P, tert-Butyl 4-isopropyl-1,4-diazepane-1-carboxylate
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of imidazolyl-pyrimidine compds. as CDK2 inhibitors for treatment of proliferative disorders)

RN 851048-46-9 CAPLUS

CN 1H-1,4-Diazepine-1-carboxylic acid, hexahydro-4-(1-methylethyl)-, 1,1-dimethylethyl ester (CA INDEX NAME)

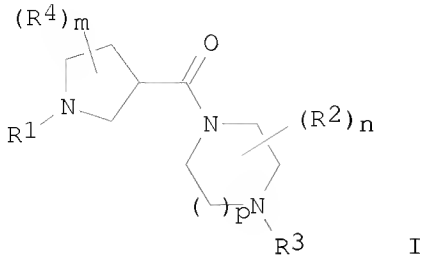


REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L15 ANSWER 10 OF 11 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2006:364994 CAPLUS
DOCUMENT NUMBER: 144:412356
TITLE: Pyrrolidine derivatives as histamine H3 receptor ligands, and their preparation, pharmaceutical compositions, and use for treating neurological diseases such as cognitive impairment in Alzheimer's disease
INVENTOR(S): Bruton, Gordon; Cooper, Ian Ronald; Orlek, Barry Sidney
PATENT ASSIGNEE(S): Glaxo Group Ltd., UK
SOURCE: PCT Int. Appl., 90 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
WO 2006040192	A1	20060420	WO 2005-EP11371		20051013
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW					
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM					
EP 1802307	A1	20070704	EP 2005-802453		20051013
EP 1802307	B1	20080227			
R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, HR					
AT 387202	T	20080315	AT 2005-802453		20051013
JP 2008516922	T	20080522	JP 2007-536122		20051013
ES 2303280	T3	20080801	ES 2005-802453		20051013
US 20080045506	A1	20080221	US 2007-576968		20070410
PRIORITY APPLN. INFO.:			GB 2004-23005	A	20041015
			GB 2005-8441	A	20050426
			WO 2005-EP11371	W	20051013

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT
OTHER SOURCE(S): CASREACT 144:412356; MARPAT 144:412356
GI



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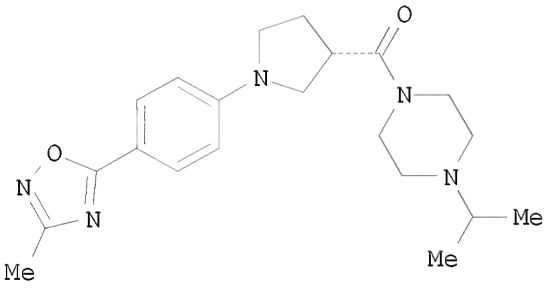


II

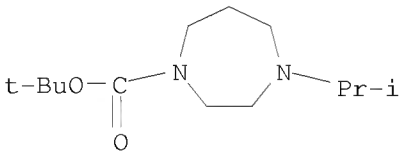
AB The invention relates to pyrrolidine derivs. I and pharmaceutically acceptable salts, having pharmacol. activity, processes for their preparation, to compns. containing them, and to their use in the treatment of neurol. and psychiatric disorders. In compds. I, R1 = (hetero)aryl, -(hetero)aryl-X-C3-7-cycloalkyl, -aryl-X-(hetero)aryl, -heteroaryl-X-(hetero)aryl, or -(hetero)aryl-X-heterocyclyl; wherein said (hetero)aryl and heterocyclyls of may be independently substituted by 1+ (e.g. 1, 2 or 3) halo, OH, cyano, NO2, oxo, halo-C1-6-alkyl, halo-C1-6-alkoxy, C1-6-alkyl, C1-6-alkoxy, C1-6-alkylthio, C1-6-alkoxy-C1-6-alkyl, C3-7-cycloalkyl-C1-6-alkoxy, COC1-6-alkyl, CO-halo-C1-6-alkyl, CO-C1-6-alkylcyano, C1-6-alkoxycarbonyl, C1-6-alkylsulfonyl, C1-6-alkylsulfinyl, C1-6-alkylsulfonyloxy, C1-6-alkylsulfonyl-C1-6-alkyl, C1-6-alkylsulfonamido-C1-6-alkyl, C1-6-alkylamido-C1-6-alkyl, aryl, arylsulfonyl, arylsulfonyloxy, aryloxy, arylsulfonamido, arylcarboxamido, aroyl, or a group NR15R16, CONR15R16, NR15COOR16, C(R15):NOR16, NR15SO2R16, or SO2NR15R16; wherein R15, R16 = H or C1-6 alkyl, or together form a heterocyclic ring; X = bond, O, CO, SO2, OCH2, or CH2O; each R2 and R4 = C1-4 alkyl; R3 = C2-6-alkyl, C3-6-alkenyl, C2-6-alkynyl, C3-6-cycloalkyl, C5-6-cycloalkenyl, or C0-4-alkyl-C3-6-cycloalkyl; wherein said C3-6-cycloalkyls of R3 may be independently substituted by 1+ (e.g. 1, 2 or 3) halo, C1-4 alkyl or CF3; m and n = 0, 1 or 2; p = 1 or 2; and solvates. I and their pharmaceutically acceptable salts have affinity for and are antagonists and/or inverse agonists of the histamine H3 receptor, and are believed to be of potential use in the treatment of neurol. diseases including Alzheimer's disease, dementia (including Lewy body dementia and vascular dementia), age-related memory dysfunction, mild cognitive impairment, cognitive deficit, epilepsy, pain of neuropathic origin including neuralgias, neuritis and back pain, and inflammatory pain including osteoarthritis, rheumatoid arthritis, acute inflammatory pain and back pain, migraine, Parkinson's disease, multiple sclerosis, stroke and sleep

disorders (including narcolepsy and sleep deficits associated with Parkinson's disease); psychiatric disorders including schizophrenia (particularly cognitive deficit of schizophrenia), attention deficit hyperactivity disorder, depression, anxiety and addiction; and other diseases including obesity and gastrointestinal disorders. I are expected to be selective for the histamine H3 receptor over other histamine receptor subtypes, such as the histamine H1 receptor. Generally, I may be at least 10-fold selective for H3 over H1, such as at least 100-fold selective. The invention also provides I or their pharmaceutically acceptable salts for use as therapeutic substances in the treatment or prophylaxis of the above disorders, in particular cognitive impairments in diseases such as Alzheimer's disease and related neurodegenerative disorders. The invention further provides a method of treatment or prophylaxis of the above disorders, in mammals including humans, which comprises administering to the sufferer a therapeutically effective amount of a compound I or a pharmaceutically acceptable salt thereof. In another aspect, the invention provides the use of I or a pharmaceutically acceptable salt thereof in the manufacture of a medicament for use in the treatment of the above disorders. Approx. 60 prepns. of I, and approx. 55 prepns. of intermediates are given. For instance, Pd-catalyzed coupling of 5-(4-bromophenyl)-3-methyl-1,2,4-oxadiazole with 1-(1-methylethyl)-4-((3S)-3-pyrrolidinylcarbonyl)piperazine (prepns. given) in the presence of Pd2(dba)3, 2-dicyclohexylphosphino-2'-(N,N-dimethylamino)biphenyl, and potassium phosphate in DME at 75°, gave invention compound II. In functional antagonist assays using cloned human histamine receptors, compound II exhibited antagonism ≥ 9.5 fpKi at H3 receptors and < 6.5 fpKi at H1 receptors.

IT 851048-46-9P, tert-Butyl 4-(1-methylethyl)hexahydro-1H-1,4-diazepine-1-carboxylate 851048-47-0P, 1-(1-Methylethyl)hexahydro-1H-1,4-diazepine dihydrochloride 851048-48-1P, tert-Butyl 4-(cyclobutyl)hexahydro-1H-1,4-diazepine-1-carboxylate 851048-49-2P, 1-(Cyclobutyl)hexahydro-1H-1,4-diazepine dihydrochloride
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(intermediate; preparation of pyrrolidine derivs. as histamine H3 receptor ligands for treating neurol. diseases)

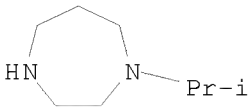
RN 851048-46-9 CAPLUS

CN 1H-1,4-Diazepine-1-carboxylic acid, hexahydro-4-(1-methylethyl)-, 1,1-dimethylethyl ester (CA INDEX NAME)



RN 851048-47-0 CAPLUS

CN 1H-1,4-Diazepine, hexahydro-1-(1-methylethyl)-, hydrochloride (1:2) (CA INDEX NAME)



●2 HCl

RN 851048-48-1 CAPLUS
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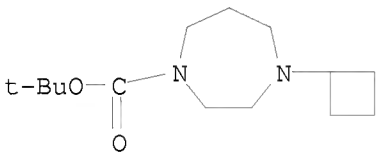
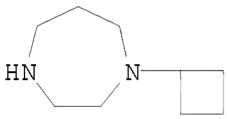


RN 851048-49-2 CAPLUS
CN 1H-1,4-Diazepine, 1-cyclobutylhexahydro-, hydrochloride (1:2) (CA INDEX NAME)



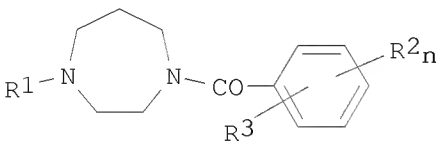
●2 HCl

OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1 CITINGS)
REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L15 ANSWER 11 OF 11 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2005:395292 CAPLUS
DOCUMENT NUMBER: 142:430314
TITLE: Preparation of (1H-1,4-diazepan-1-yl)(phenyl)methanones as histamine H3 functional antagonists for treating neurological disorders
INVENTOR(S): Bruton, Gordon; Huxley, Anthony; Orlek, Barry Sidney; Rana, Kishore Kalidas
PATENT ASSIGNEE(S): Glaxo Group Limited, UK
SOURCE: PCT Int. Appl., 37 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005040144	A1	20050506	WO 2004-EP11619	20041014
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
EP 1675838	A1	20060705	EP 2004-765973	20041014
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK, HR				
JP 2007508346	T	20070405	JP 2006-534702	20041014
US 20080045505	A1	20080221	US 2007-576492	20070206
PRIORITY APPLN. INFO.:			GB 2003-24159 A	20031015
			WO 2004-EP11619 W	20041014

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT
OTHER SOURCE(S): CASREACT 142:430314; MARPAT 142:430314
GI



I

AB The present invention relates to novel diazepanyl derivs. (shown as I; variables defined below; e.g. 4'-[(4-cyclobutylhexahydro-1H-1,4-diazepin-1-yl)carbonyl]-4-biphenylcarbonitrile (II)) having pharmacol. activity, processes for their preparation, to compns. containing them and to their use in the

treatment of neurol. disorders. For I: R1 = branched C3-6 alkyl, C3-5 cycloalkyl or C1-4 alkylC3-4 cycloalkyl; R2 = halo, C1-6 alkyl, C1-6 alkoxy, cyano, amino or trifluoromethyl; n = 0-2; R3 = X-aryl, X-heteroaryl, X-heterocyclyl, X-arylaryl, X-arylheteroaryl, X-arylheterocyclyl, X-heteroarylaryl, X-heteroarylheteroaryl, X-heteroarylheterocyclyl, X-heterocyclylaryl, X-heterocyclylheteroaryl or X-heterocyclylheterocyclyl; such that when R3 = X-piperidinyl, X-piperidinylaryl, X-piperidinylheteroaryl or X-piperidinylheterocyclyl said piperidinyl group is attached to X via a N atom; wherein R3 is attached to the Ph group of I at the 3 or 4 position; X = a bond, O, CO, SO2, CH2O, OCH2, NR4, NR4CO or C1-6-alkyl. R4 = H or C1-6 alkyl; wherein said aryl, heteroaryl or heterocyclyl groups of R3 may be (un)substituted by ≥1 (e.g. 1, 2 or 3) halo, hydroxy, cyano, nitro, oxo, haloC1-6 alkyl, haloC1-6 alkoxy, C1-6 alkyl, C1-6 alkoxy, arylC1-6 alkoxy, C1-6 alkylthio, C1-6 alkoxyC1-6 alkyl, C3-7 cycloalkylC1-6 alkoxy, C3-7 cycloalkylcarbonyl, -COC1-6 alkyl, C1-6 alkoxycarbonyl, arylC1-6 alkyl, heteroarylC1-6-alkyl, heterocyclylC1-6 alkyl, C1-6 alkylsulfonyl, C1-6 alkylsulfinyl, C1-6 alkylsulfonyloxy, C1-6 alkylsulfonylC1-6 alkyl, arylsulfonyl, arylsulfonyloxy, arylsulfonylC1-6 alkyl, aryloxy, CO-aryl, CO-heterocyclyl, CO-heteroaryl, C1-6 alkylsulfonamidoC1-6 alkyl, C1-6 alkylamidoC1-6 alkyl, arylsulfonamido, arylaminosulfonyl, arylsulfonamidoC1-6 alkyl, arylcarboxamidoC1-6 alkyl, aroylC1-6 alkyl, arylC1-6 alkanoyl, NR15R16, NR15CO-aryl, NR15CO-heterocyclyl, NR15CO-heteroaryl, CONR15R16, NR15COR16, NR15SO2R16 or SO2NR15R16 groups, wherein R15 and R16 = independently H or C1-6 alkyl. Although the methods of preparation are not claimed, 58 example prepns. and/or characterization data sets for I are included; example prepns. for intermediates are also included. For example, II was prepared from 1-(cyclobutyl)hexahydro-1H-1,4-diazepine dihydrochloride and 4'-cyano-4-biphenylcarboxylic acid using diethylaminomethylpolystyrene, HOBT and EDC in CH2Cl2. The diazepine reactant was prepared in 2 steps starting from tert-Bu hexahydro-1H-1,4-diazepine-1-carboxylate and cyclobutanone followed by deprotection at N. The 58 example I were tested in the histamine H3 functional antagonist assay and exhibited pKb values > 8.0. Most particularly, the hydrochlorides of II, 1-[4'-[(4-cyclobutylhexahydro-1H-1,4-diazepin-1-yl)carbonyl]biphenyl-4-yl]ethanone, 1-cyclobutyl-4-[[4-[6-(trifluoromethyl)-3-pyridinyl]phenyl]carbonyl]hexahydro-1H-1,4-diazepine, 6-[4-[(4-cyclobutylhexahydro-1H-1,4-diazepin-1-yl)carbonyl]phenyl]-3-cyanopyridine and 1-Cyclobutyl-4-[[4-(3-methyl-1,2,4-oxadiazol-5-yl)phenyl]carbonyl]hexahydro-1H-1,4-diazepine exhibited pKb values >9.5. Most of the 58 example I were tested in the histamine H1 functional antagonist assay and exhibited antagonism < 7.0 pKb; most of these exhibited antagonism < 6.0 pKb.

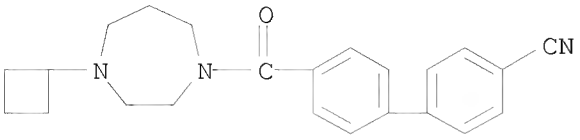
IT 851048-57-2P, 4'-[(4-Cyclobutylhexahydro-1H-1,4-diazepin-1-yl)carbonyl]-4-biphenylcarbonitrile hydrochloride 851048-58-3P, 1-[4'-[(4-Cyclobutylhexahydro-1H-1,4-diazepin-1-yl)carbonyl]biphenyl-4-yl]ethanone hydrochloride 851048-59-4P, (4-Cyclobutyl-1H-1,4-diazepan-1-yl)(biphenyl-4-yl)methanone hydrochloride 851048-60-7P, (4-Cyclobutyl-1H-1,4-diazepan-1-yl)(4-benzoylphenyl)methanone hydrochloride 851048-61-8P, (4-Cyclobutyl-1H-1,4-diazepan-1-yl)(4-phenoxyphenyl)methanone hydrochloride 851048-62-9P, (4-Cyclobutyl-1H-1,4-diazepan-1-yl)(4-benzyloxyphenyl)methanone hydrochloride 851048-63-0P, 1-Cyclobutyl-4-[[4-(tetrazol-1-yl)phenyl]carbonyl]hexahydro-1H-1,4-diazepine hydrochloride 851048-64-1P,

1-Cyclobutyl-4-[[4-[4-(4-fluorophenyl)-1,3-thiazol-2-yl]phenyl]carbonyl]hexahydro-1H-1,4-diazepine hydrochloride 851048-65-2P, 1-Cyclobutyl-4-[[4-(1,1-dioxido-4-thiomorpholinyl)phenyl]carbonyl]hexahydro-1H-1,4-diazepine hydrochloride 851048-66-3P, 1-(Isopropyl)-4-[[4-[(tetrahydro-2H-pyran-4-yl)oxy]phenyl]carbonyl]hexahydro-1H-1,4-diazepine hydrochloride 851048-67-4P, 1-Cyclobutyl-4-[[4-[6-(trifluoromethyl)-3-pyridinyl]phenyl]carbonyl]hexahydro-1H-1,4-diazepine hydrochloride 851048-68-5P, 6-[4-[(4-Cyclobutylhexahydro-1H-1,4-diazepin-1-yl)carbonyl]phenyl]-3-cyanopyridine hydrochloride 851048-69-6P , 5-[4-[(4-Cyclobutylhexahydro-1H-1,4-diazepin-1-yl)carbonyl]phenyl]-N-methyl-2-pyridinecarboxamide hydrochloride 851048-70-9P, 5-[4-[(4-Cyclobutylhexahydro-1H-1,4-diazepin-1-yl)carbonyl]phenyl]-2-cyanopyridine hydrochloride 851048-71-0P, 5-[4-[(4-Isopropylhexahydro-1H-1,4-diazepin-1-yl)carbonyl]phenyl]-2-cyanopyridine hydrochloride 851048-72-1P, N-Methyl-5-[4-[(4-isopropylhexahydro-1H-1,4-diazepin-1-yl)carbonyl]phenyl]-2-pyridinecarboxamide hydrochloride 851048-73-2P, (4-Isopropyl-1H-1,4-diazepan-1-yl)[4-[2-(trifluoromethyl)pyrimidin-5-yl]phenyl]methanone hydrochloride 851048-74-3P, (4-Isopropyl-1H-1,4-diazepan-1-yl)[4-[6-(trifluoromethyl)pyridazin-3-yl]phenyl]methanone hydrochloride 851048-75-4P, (4-Isopropyl-1H-1,4-diazepan-1-yl)[4-[6-(trifluoromethyl)pyridin-3-yl]phenyl]methanone hydrochloride 851048-76-5P, (4-Isopropyl-1H-1,4-diazepan-1-yl)[4-[6-[(dimethylamino)carbonyl]pyridin-3-yl]phenyl]methanone hydrochloride 851048-77-6P, (4-Isopropyl-1H-1,4-diazepan-1-yl)[4-(5-cyanopyridin-2-yl)phenyl]methanone hydrochloride 851048-78-7P, 1-Cyclobutyl-4-[[4-[6-(trifluoromethyl)-3-pyridazinyl]phenyl]carbonyl]hexahydro-1H-1,4-diazepine hydrochloride 851048-79-8P, 1-Cyclobutyl-4-[[4-[2-(trifluoromethyl)-5-pyrimidinyl]phenyl]carbonyl]hexahydro-1H-1,4-diazepine hydrochloride 851048-80-1P, (4-Cyclobutyl-1H-1,4-diazepan-1-yl)[4-[3-(aminocarbonyl)phenyl]phenyl]methanone hydrochloride 851048-81-2P, (4-Cyclobutyl-1H-1,4-diazepan-1-yl)[4-[4-cyano-3-(trifluoromethyl)-1H-pyrazol-1-yl]phenyl]methanone hydrochloride 851048-82-3P, (4-Cyclobutyl-1H-1,4-diazepan-1-yl)[4-[[2-oxo-5-(trifluoromethyl)-1,2-dihydropyridin-1-yl]methyl]phenyl]methanone hydrochloride 851048-83-4P, (4-Isopropyl-1H-1,4-diazepan-1-yl)[4-(4-cyanophenyl)phenyl]methanone hydrochloride 851048-84-5P, (4-Cyclobutyl-1H-1,4-diazepan-1-yl)[4-[(4,6-dimethylpyrimidin-2-yl)(methyl)amino]phenyl]methanone hydrochloride 851048-85-6P, (4-Cyclobutyl-1H-1,4-diazepan-1-yl)[4-(4-fluorophenyl)phenyl]methanone hydrochloride 851048-86-7P, (4-Cyclobutyl-1H-1,4-diazepan-1-yl)[4-(3-fluorophenyl)phenyl]methanone hydrochloride 851048-87-8P, (4-Cyclobutyl-1H-1,4-diazepan-1-yl)[4-(pyridin-2-yl)phenyl]methanone hydrochloride 851048-88-9P, (4-Cyclobutyl-1H-1,4-diazepan-1-yl)[4-(pyridin-3-yl)phenyl]methanone hydrochloride 851048-89-0P, (4-Cyclobutyl-1H-1,4-diazepan-1-yl)[4-(4-cyanophenoxy)phenyl]methanone hydrochloride 851048-90-3P, (4-Cyclobutyl-1H-1,4-diazepan-1-yl)[4-(phenoxymethyl)phenyl]methanone hydrochloride 851048-91-4P, (4-Cyclobutyl-1H-1,4-diazepan-1-yl)[4-(3,5-dimethylisoxazol-4-yl)phenyl]methanone hydrochloride 851048-92-5P,

(4-Isopropyl-1H-1,4-diazepan-1-yl)[4-(3,5-dimethylisoxazol-4-yl)phenyl]methanone hydrochloride 851048-93-6P, (4-Cyclobutyl-1H-1,4-diazepan-1-yl)[4-(oxazol-5-yl)phenyl]methanone hydrochloride 851048-94-7P, (4-Cyclobutyl-1H-1,4-diazepan-1-yl)[4-(2-ethyl-2H-tetrazol-5-yl)phenyl]methanone hydrochloride 851048-95-8P, (4-Cyclobutyl-1H-1,4-diazepan-1-yl)[4-(pyrrol-1-yl)phenyl]methanone hydrochloride 851048-96-9P, (4-Cyclobutyl-1H-1,4-diazepan-1-yl)[4-(3,5-dimethyl-1H-pyrazol-1-yl)phenyl]methanone hydrochloride 851048-97-0P, (4-Cyclobutyl-1H-1,4-diazepan-1-yl)[4-[(3,5-dimethyl-1H-pyrazol-1-yl)methyl]phenyl]methanone hydrochloride 851048-98-1P, (4-Cyclobutyl-1H-1,4-diazepan-1-yl)[4-(morpholin-4-yl)phenyl]methanone hydrochloride 851048-99-2P, (4-Isopropyl-1H-1,4-diazepan-1-yl)[4-(morpholin-4-yl)phenyl]methanone hydrochloride 851049-00-8P, (4-Cyclobutyl-1H-1,4-diazepan-1-yl)[3-(benzyloxy)phenyl]methanone hydrochloride 851049-01-9P, (4-Cyclobutyl-1H-1,4-diazepan-1-yl)[3-[(pyridin-3-yl)methoxy]phenyl]methanone hydrochloride 851049-02-0P, (4-Cyclobutyl-1H-1,4-diazepan-1-yl)[3-[(pyrazin-2-yl)methoxy]phenyl]methanone hydrochloride 851049-03-1P, (4-Cyclobutyl-1H-1,4-diazepan-1-yl)[3-(5-methyl-1H-tetrazol-1-yl)phenyl]methanone hydrochloride 851049-04-2P, (4-Cyclobutyl-1H-1,4-diazepan-1-yl)[3-(2-oxopyrrolidin-1-yl)phenyl]methanone hydrochloride 851049-05-3P, (4-Cyclobutyl-1H-1,4-diazepan-1-yl)[3-[[(pyridin-3-yl)carbonyl]amino]phenyl]methanone hydrochloride 851049-06-4P, (4-Cyclobutyl-1H-1,4-diazepan-1-yl)[3-[[(pyridin-4-yl)carbonyl]amino]phenyl]methanone hydrochloride 851049-07-5P, (4-Cyclobutyl-1H-1,4-diazepan-1-yl)[3-(pyridin-3-yl)phenyl]methanone hydrochloride 851049-08-6P, (4-Cyclobutyl-1H-1,4-diazepan-1-yl)[4'-(oxazol-2-yl)biphenyl-4-yl]methanone hydrochloride 851049-09-7P, (4-Cyclobutyl-1H-1,4-diazepan-1-yl)[4'-(2-methyloxazol-4-yl)biphenyl-4-yl]methanone hydrochloride 851049-10-0P, (4-Cyclobutyl-1H-1,4-diazepan-1-yl)[4'-(2-methyloxazol-5-yl)biphenyl-4-yl]methanone hydrochloride 851049-11-1P, (4-Cyclobutyl-1H-1,4-diazepan-1-yl)[4'-(5-methyl-1,2,4-oxadiazol-3-yl)biphenyl-4-yl]methanone hydrochloride 851049-12-2P, 1-Cyclobutyl-4-[[4-(1,3-oxazol-2-yl)phenyl]carbonyl]hexahydro-1H-1,4-diazepine hydrochloride 851049-17-7P, 1-(1-Methylethyl)-4-[[4-(3-methyl-1,2,4-oxadiazol-5-yl)phenyl]carbonyl]hexahydro-1H-1,4-diazepine hydrochloride 851049-19-9P, 1-Cyclobutyl-4-[[4-(3-methyl-1,2,4-oxadiazol-5-yl)phenyl]carbonyl]hexahydro-1H-1,4-diazepine hydrochloride
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(drug candidate; preparation of (1H-1,4-diazepan-1-yl)(phenyl)methanones as histamine H3 functional antagonists for treating neurol. disorders)

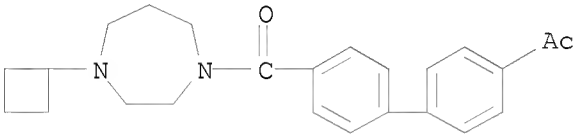
RN 851048-57-2 CAPLUS

CN [1,1'-Biphenyl]-4-carbonitrile, 4'-[(4-cyclobutylhexahydro-1H-1,4-diazepin-1-yl)carbonyl]-, hydrochloride (1:1) (CA INDEX NAME)



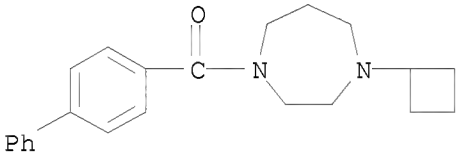
● HCl

RN 851048-58-3 CAPLUS
CN 1H-1,4-Diazepine, 1-[(4'-acetyl[1,1'-biphenyl]-4-yl)carbonyl]-4-cyclobutylhexahydro-, monohydrochloride (9CI) (CA INDEX NAME)



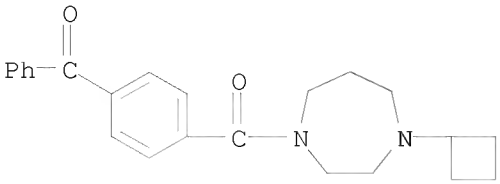
● HCl

RN 851048-59-4 CAPLUS
CN Methanone, [1,1'-biphenyl]-4-yl(4-cyclobutylhexahydro-1H-1,4-diazepin-1-yl)-, hydrochloride (1:1) (CA INDEX NAME)



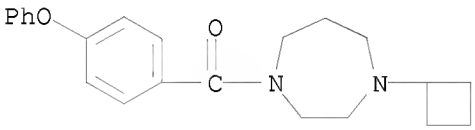
● HCl

RN 851048-60-7 CAPLUS
CN INDEX NAME NOT YET ASSIGNED



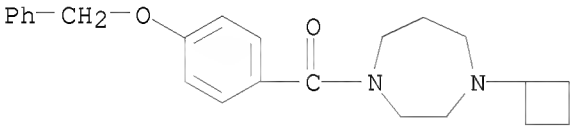
● HCl

RN 851048-61-8 CAPLUS
CN Methanone, (4-cyclobutylhexahydro-1H-1,4-diazepin-1-yl)(4-phenoxyphenyl)-, hydrochloride (1:1) (CA INDEX NAME)



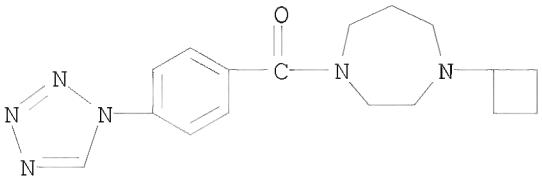
● HCl

RN 851048-62-9 CAPLUS
CN Methanone, (4-cyclobutylhexahydro-1H-1,4-diazepin-1-yl)[4-(phenylmethoxy)phenyl]-, hydrochloride (1:1) (CA INDEX NAME)



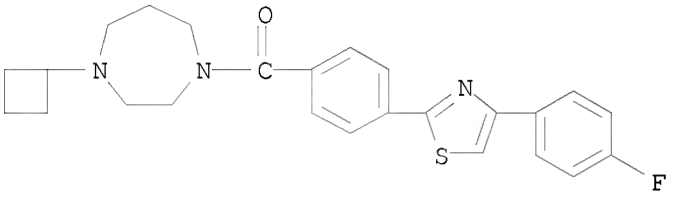
● HCl

RN 851048-63-0 CAPLUS
CN Methanone, (4-cyclobutylhexahydro-1H-1,4-diazepin-1-yl)[4-(1H-tetrazol-1-yl)phenyl]-, hydrochloride (1:?) (CA INDEX NAME)



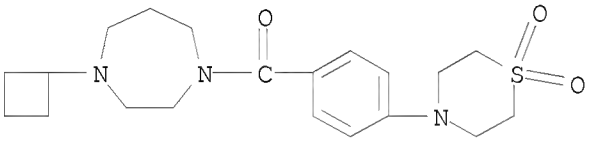
● x HCl

RN 851048-64-1 CAPLUS
CN Methanone, (4-cyclobutylhexahydro-1H-1,4-diazepin-1-yl)[4-[4-(4-fluorophenyl)-2-thiazolyl]phenyl]-, hydrochloride (1:?) (CA INDEX NAME)



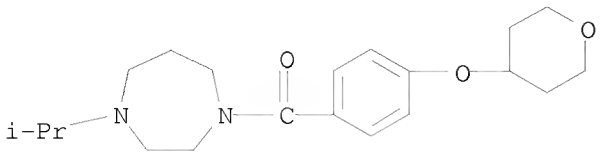
● x HCl

RN 851048-65-2 CAPLUS
CN Methanone, (4-cyclobutylhexahydro-1H-1,4-diazepin-1-yl)[4-(1,1-dioxido-4-thiomorpholinyl)phenyl]-, hydrochloride (1:?) (CA INDEX NAME)



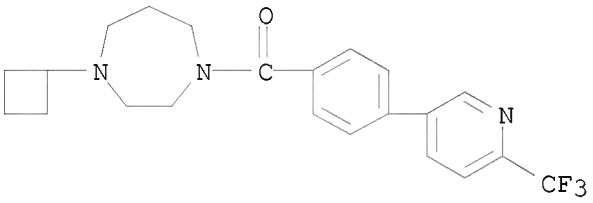
● x HCl

RN 851048-66-3 CAPLUS
CN Methanone, [hexahydro-4-(1-methylethyl)-1H-1,4-diazepin-1-yl][4-[(tetrahydro-2H-pyran-4-yl)oxy]phenyl]-, hydrochloride (1:1) (CA INDEX NAME)



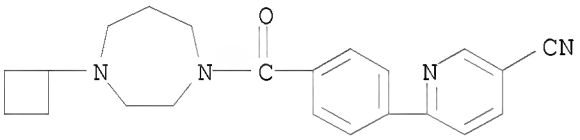
● HCl

RN 851048-67-4 CAPLUS
CN Methanone, (4-cyclobutylhexahydro-1H-1,4-diazepin-1-yl)[4-[6-(trifluoromethyl)-3-pyridinyl]phenyl]-, hydrochloride (1:?) (CA INDEX NAME)



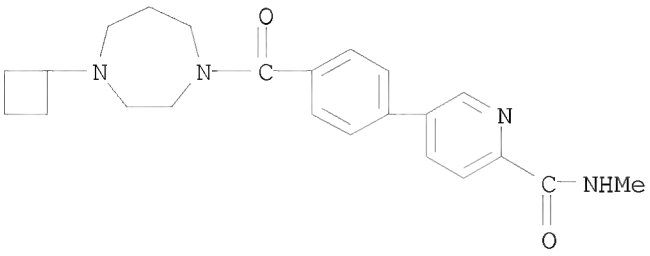
●x HCl

RN 851048-68-5 CAPLUS
CN 3-Pyridinecarbonitrile, 6-[4-[(4-cyclobutylhexahydro-1H-1,4-diazepin-1-yl)carbonyl]phenyl]-, hydrochloride (1:?) (CA INDEX NAME)



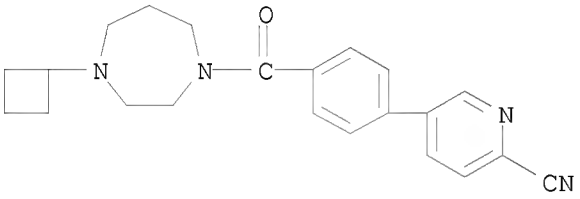
●x HCl

RN 851048-69-6 CAPLUS
CN 2-Pyridinecarboxamide, 5-[4-[(4-cyclobutylhexahydro-1H-1,4-diazepin-1-yl)carbonyl]phenyl]-N-methyl-, hydrochloride (1:?) (CA INDEX NAME)



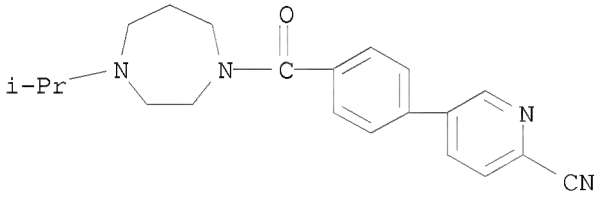
●x HCl

RN 851048-70-9 CAPLUS
CN 2-Pyridinecarbonitrile, 5-[4-[(4-cyclobutylhexahydro-1H-1,4-diazepin-1-yl)carbonyl]phenyl]-, hydrochloride (1:?) (CA INDEX NAME)



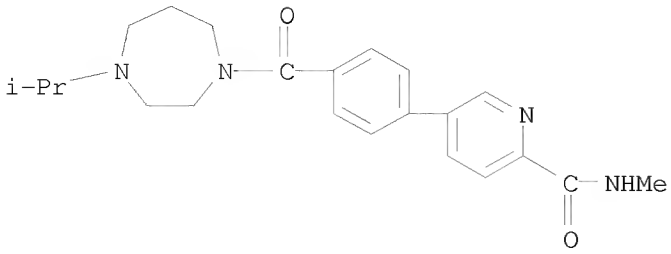
●x HCl

RN 851048-71-0 CAPLUS
CN 2-Pyridinecarbonitrile, 5-[4-[[hexahydro-4-(1-methylethyl)-1H-1,4-diazepin-1-yl]carbonyl]phenyl]-, hydrochloride (1:?) (CA INDEX NAME)



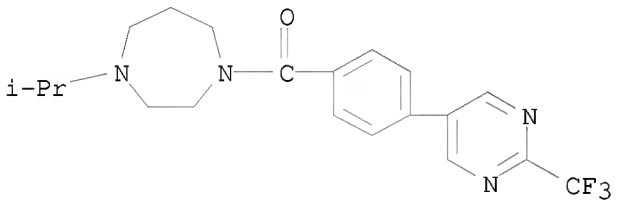
●x HCl

RN 851048-72-1 CAPLUS
CN 2-Pyridinecarboxamide, 5-[4-[[hexahydro-4-(1-methylethyl)-1H-1,4-diazepin-1-yl]carbonyl]phenyl]-N-methyl-, hydrochloride (1:?) (CA INDEX NAME)



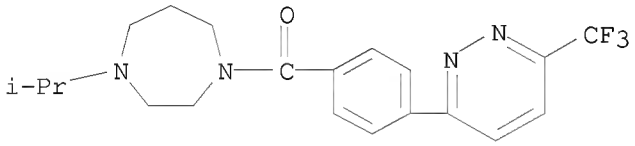
●x HCl

RN 851048-73-2 CAPLUS
CN Methanone, [hexahydro-4-(1-methylethyl)-1H-1,4-diazepin-1-yl][4-[2-(trifluoromethyl)-5-pyrimidinyl]phenyl]-, hydrochloride (1:?) (CA INDEX NAME)



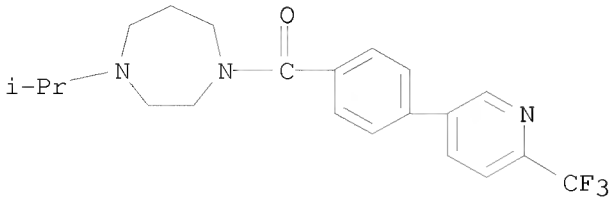
●x HCl

RN 851048-74-3 CAPLUS
CN Methanone, [hexahydro-4-(1-methylethyl)-1H-1,4-diazepin-1-yl][4-[6-(trifluoromethyl)-3-pyridazinyl]phenyl]-, hydrochloride (1:?) (CA INDEX NAME)



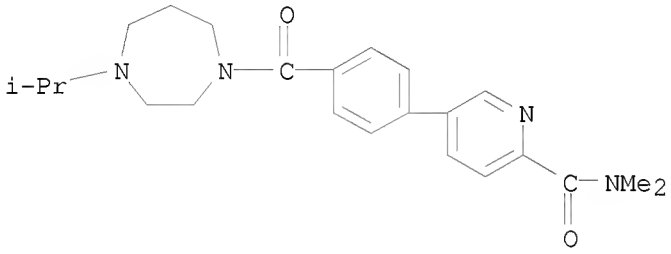
●x HCl

RN 851048-75-4 CAPLUS
CN Methanone, [hexahydro-4-(1-methylethyl)-1H-1,4-diazepin-1-yl][4-[6-(trifluoromethyl)-3-pyridinyl]phenyl]-, hydrochloride (1:?) (CA INDEX NAME)



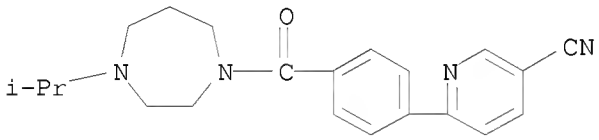
● x HCl

RN 851048-76-5 CAPLUS
CN 2-Pyridinecarboxamide, 5-[4-[[hexahydro-4-(1-methylethyl)-1H-1,4-diazepin-1-yl]carbonyl]phenyl]-N,N-dimethyl-, hydrochloride (1:?) (CA INDEX NAME)



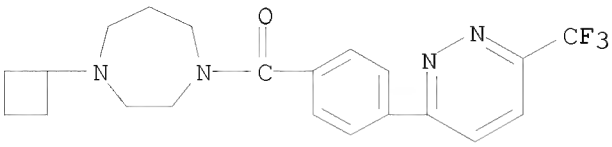
● x HCl

RN 851048-77-6 CAPLUS
CN 3-Pyridinecarbonitrile, 6-[4-[[hexahydro-4-(1-methylethyl)-1H-1,4-diazepin-1-yl]carbonyl]phenyl]-, hydrochloride (1:?) (CA INDEX NAME)



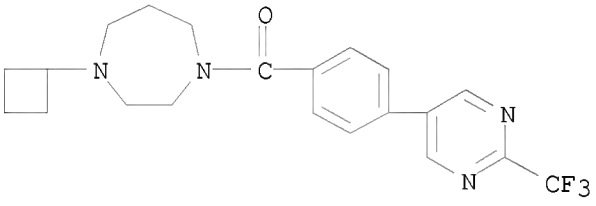
● x HCl

RN 851048-78-7 CAPLUS
CN Methanone, (4-cyclobutylhexahydro-1H-1,4-diazepin-1-yl)[4-[6-(trifluoromethyl)-3-pyridazinyl]phenyl]-, hydrochloride (1:?) (CA INDEX NAME)



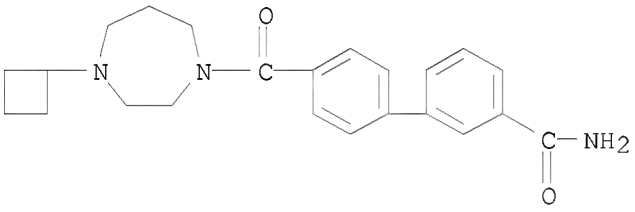
● x HCl

RN 851048-79-8 CAPLUS
CN Methanone, (4-cyclobutylhexahydro-1H-1,4-diazepin-1-yl)[4-[2-(trifluoromethyl)-5-pyrimidinyl]phenyl]-, hydrochloride (1:?) (CA INDEX NAME)



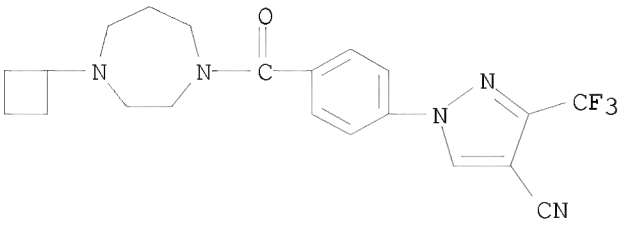
● x HCl

RN 851048-80-1 CAPLUS
CN [1,1'-Biphenyl]-3-carboxamide, 4'-[(4-cyclobutylhexahydro-1H-1,4-diazepin-1-yl)carbonyl]-, hydrochloride (1:1) (CA INDEX NAME)



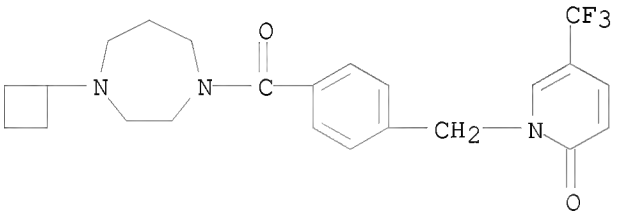
● HCl

RN 851048-81-2 CAPLUS
CN 1H-Pyrazole-4-carbonitrile, 1-[4-[(4-cyclobutylhexahydro-1H-1,4-diazepin-1-yl)carbonyl]phenyl]-3-(trifluoromethyl)-, hydrochloride (1:?) (CA INDEX NAME)



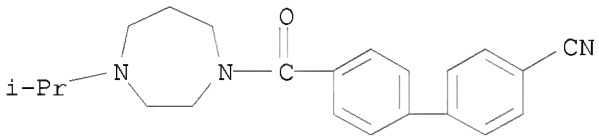
● x HCl

RN 851048-82-3 CAPLUS
CN 2(1H)-Pyridinone, 1-[[4-[(4-cyclobutylhexahydro-1H-1,4-diazepin-1-yl)carbonyl]phenyl]methyl]-5-(trifluoromethyl)-, hydrochloride (1:1) (CA INDEX NAME)



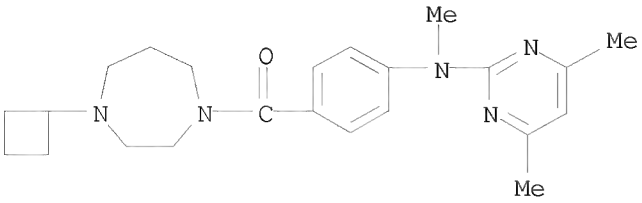
● HCl

RN 851048-83-4 CAPLUS
CN [1,1'-Biphenyl]-4-carbonitrile, 4'-[[hexahydro-4-(1-methylethyl)-1H-1,4-diazepin-1-yl]carbonyl]-, hydrochloride (1:1) (CA INDEX NAME)



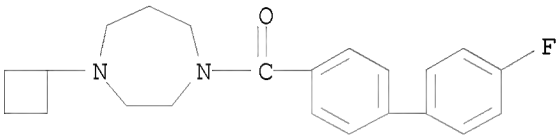
● HCl

RN 851048-84-5 CAPLUS
CN Methanone, (4-cyclobutylhexahydro-1H-1,4-diazepin-1-yl)[4-[(4,6-dimethyl-2-pyrimidinyl)methylamino]phenyl]-, hydrochloride (1:?) (CA INDEX NAME)



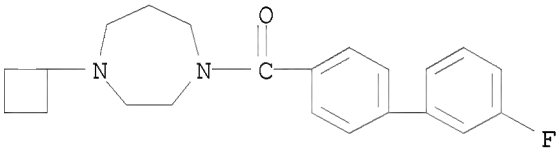
● x HCl

RN 851048-85-6 CAPLUS
CN Methanone, (4-cyclobutylhexahydro-1H-1,4-diazepin-1-yl)(4'-fluoro[1,1'-biphenyl]-4-yl)-, hydrochloride (1:1) (CA INDEX NAME)



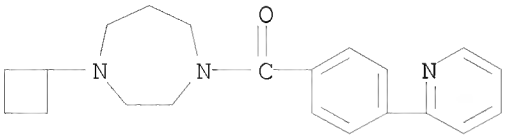
● HCl

RN 851048-86-7 CAPLUS
CN Methanone, (4-cyclobutylhexahydro-1H-1,4-diazepin-1-yl)(3'-fluoro[1,1'-biphenyl]-4-yl)-, hydrochloride (1:1) (CA INDEX NAME)



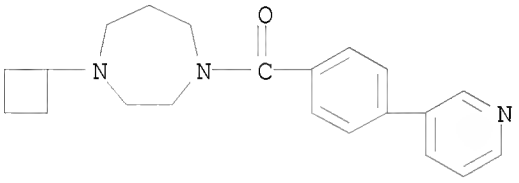
● HCl

RN 851048-87-8 CAPLUS
CN Methanone, (4-cyclobutylhexahydro-1H-1,4-diazepin-1-yl)[4-(2-pyridinyl)phenyl]-, hydrochloride (1:?) (CA INDEX NAME)



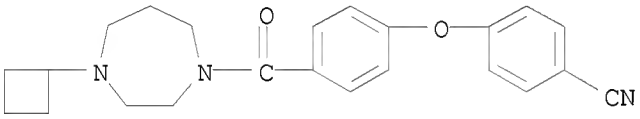
● x HCl

RN 851048-88-9 CAPLUS
CN Methanone, (4-cyclobutylhexahydro-1H-1,4-diazepin-1-yl)[4-(3-pyridinyl)phenyl]-, hydrochloride (1:?) (CA INDEX NAME)



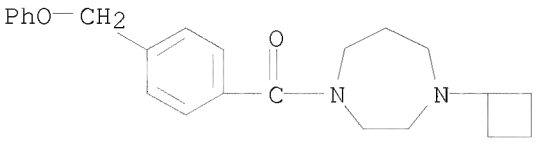
● x HCl

RN 851048-89-0 CAPLUS
CN Benzonitrile, 4-[4-[(4-cyclobutylhexahydro-1H-1,4-diazepin-1-yl)carbonyl]phenoxy]-, hydrochloride (1:1) (CA INDEX NAME)



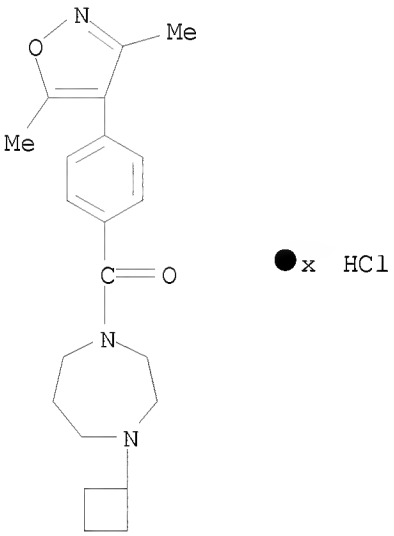
● HCl

RN 851048-90-3 CAPLUS
CN Methanone, (4-cyclobutylhexahydro-1H-1,4-diazepin-1-yl)[4-(phenoxymethyl)phenyl]-, hydrochloride (1:1) (CA INDEX NAME)



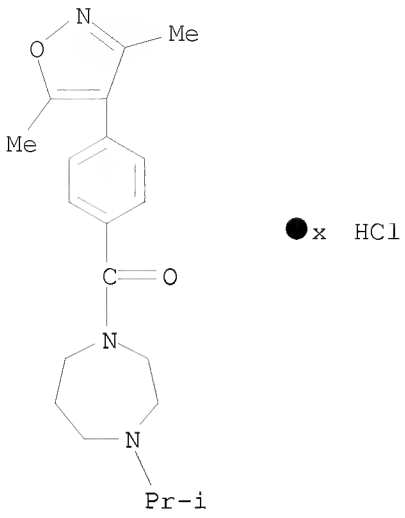
● HCl

RN 851048-91-4 CAPLUS
CN Methanone, (4-cyclobutylhexahydro-1H-1,4-diazepin-1-yl)[4-(3,5-dimethyl-4-isoxazolyl)phenyl]-, hydrochloride (1:?) (CA INDEX NAME)



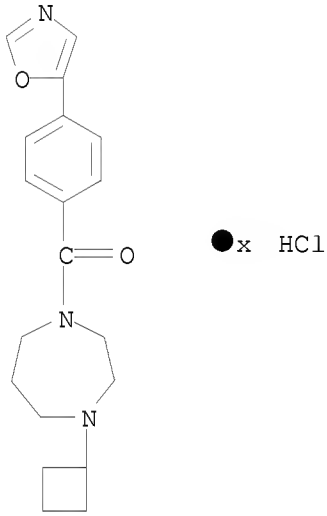
● x HCl

RN 851048-92-5 CAPLUS
CN Methanone, [4-(3,5-dimethyl-4-isoxazolyl)phenyl][hexahydro-4-(1-methylethyl)-1H-1,4-diazepin-1-yl]-, hydrochloride (1:?) (CA INDEX NAME)



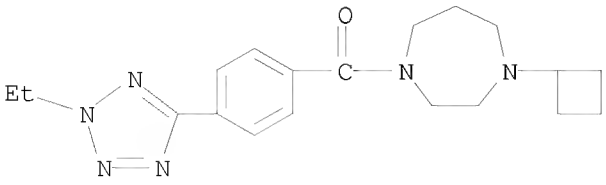
● x HCl

RN 851048-93-6 CAPLUS
CN Methanone, (4-cyclobutylhexahydro-1H-1,4-diazepin-1-yl)[4-(5-oxazolyl)phenyl]-, hydrochloride (1:?) (CA INDEX NAME)



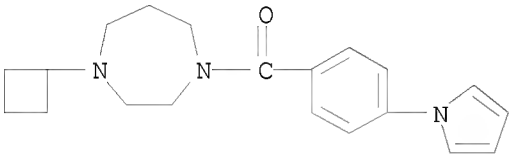
● x HCl

RN 851048-94-7 CAPLUS
CN Methanone, (4-cyclobutylhexahydro-1H-1,4-diazepin-1-yl)[4-(2-ethyl-2H-tetrazol-5-yl)phenyl]-, hydrochloride (1:?) (CA INDEX NAME)



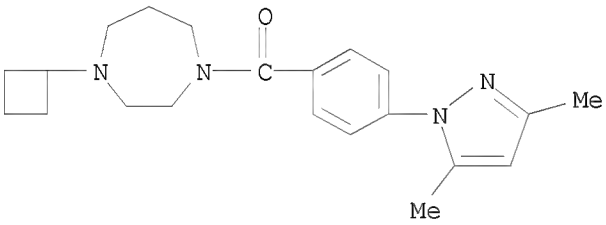
● x HCl

RN 851048-95-8 CAPLUS
CN Methanone, (4-cyclobutylhexahydro-1H-1,4-diazepin-1-yl)[4-(1H-pyrrol-1-yl)phenyl]-, hydrochloride (1:1) (CA INDEX NAME)



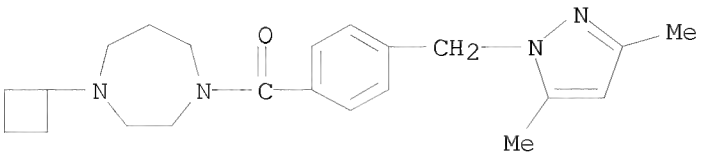
● HCl

RN 851048-96-9 CAPLUS
CN Methanone, (4-cyclobutylhexahydro-1H-1,4-diazepin-1-yl)[4-(3,5-dimethyl-1H-pyrazol-1-yl)phenyl]-, hydrochloride (1:?) (CA INDEX NAME)



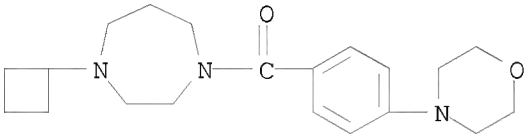
● x HCl

RN 851048-97-0 CAPLUS
CN Methanone, (4-cyclobutylhexahydro-1H-1,4-diazepin-1-yl)[4-[(3,5-dimethyl-1H-pyrazol-1-yl)methyl]phenyl]-, hydrochloride (1:?) (CA INDEX NAME)



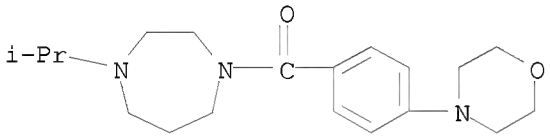
● x HCl

RN 851048-98-1 CAPLUS
CN Methanone, (4-cyclobutylhexahydro-1H-1,4-diazepin-1-yl)[4-(4-morpholinyl)phenyl]-, hydrochloride (1:?) (CA INDEX NAME)



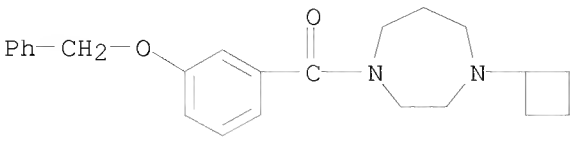
● x HCl

RN 851048-99-2 CAPLUS
CN Methanone, [hexahydro-4-(1-methylethyl)-1H-1,4-diazepin-1-yl][4-(4-morpholinyl)phenyl]-, hydrochloride (1:?) (CA INDEX NAME)



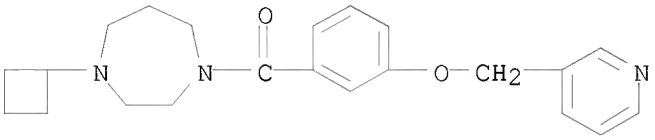
● x HCl

RN 851049-00-8 CAPLUS
CN Methanone, (4-cyclobutylhexahydro-1H-1,4-diazepin-1-yl)[3-(phenylmethoxy)phenyl]-, hydrochloride (1:1) (CA INDEX NAME)



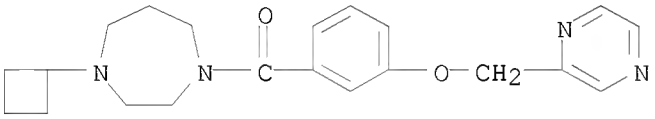
● HCl

RN 851049-01-9 CAPLUS
CN Methanone, (4-cyclobutylhexahydro-1H-1,4-diazepin-1-yl)[3-(3-pyridinylmethoxy)phenyl]-, hydrochloride (1:?) (CA INDEX NAME)



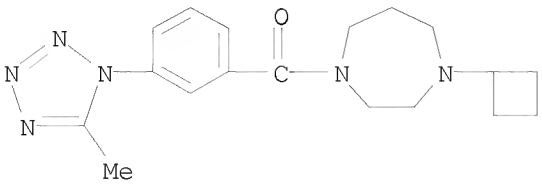
●x HCl

RN 851049-02-0 CAPLUS
CN Methanone, (4-cyclobutylhexahydro-1H-1,4-diazepin-1-yl)[3-(2-pyrazinylmethoxy)phenyl]-, hydrochloride (1:?) (CA INDEX NAME)



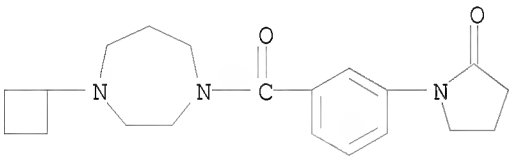
●x HCl

RN 851049-03-1 CAPLUS
CN Methanone, (4-cyclobutylhexahydro-1H-1,4-diazepin-1-yl)[3-(5-methyl-1H-tetrazol-1-yl)phenyl]-, hydrochloride (1:?) (CA INDEX NAME)



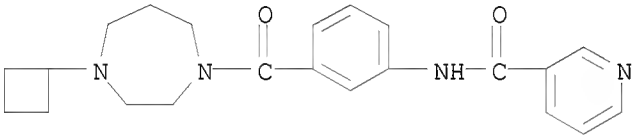
● x HCl

RN 851049-04-2 CAPLUS
CN 2-Pyrrolidinone, 1-[3-[(4-cyclobutylhexahydro-1H-1,4-diazepin-1-yl)carbonyl]phenyl]-, hydrochloride (1:1) (CA INDEX NAME)



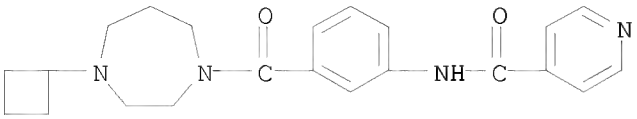
● HCl

RN 851049-05-3 CAPLUS
CN 3-Pyridinecarboxamide, N-[3-[(4-cyclobutylhexahydro-1H-1,4-diazepin-1-yl)carbonyl]phenyl]-, hydrochloride (1:?) (CA INDEX NAME)



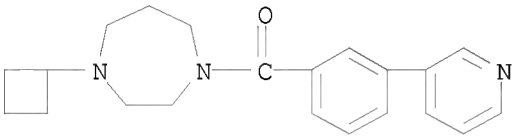
● x HCl

RN 851049-06-4 CAPLUS
CN 4-Pyridinecarboxamide, N-[3-[(4-cyclobutylhexahydro-1H-1,4-diazepin-1-yl)carbonyl]phenyl]-, hydrochloride (1:?) (CA INDEX NAME)



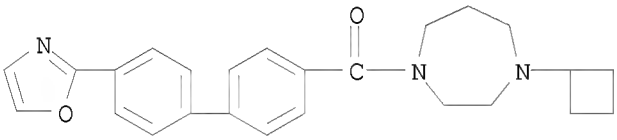
● x HCl

RN 851049-07-5 CAPLUS
CN Methanone, (4-cyclobutylhexahydro-1H-1,4-diazepin-1-yl)[3-(3-pyridinyl)phenyl]-, hydrochloride (1:?) (CA INDEX NAME)



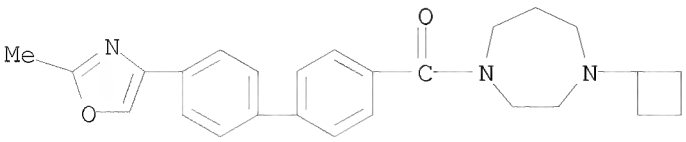
● x HCl

RN 851049-08-6 CAPLUS
CN Methanone, (4-cyclobutylhexahydro-1H-1,4-diazepin-1-yl)[4'-(2-oxazolyl)[1,1'-biphenyl]-4-yl]-, hydrochloride (1:?) (CA INDEX NAME)



● x HCl

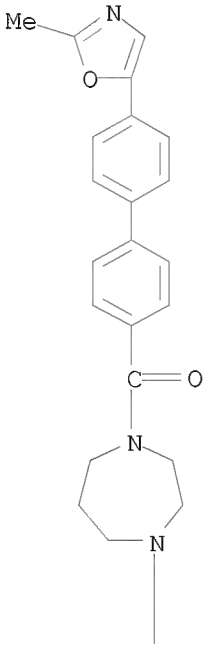
RN 851049-09-7 CAPLUS
CN Methanone, (4-cyclobutylhexahydro-1H-1,4-diazepin-1-yl)[4'-(2-methyl-4-oxazolyl)[1,1'-biphenyl]-4-yl]-, hydrochloride (1:?) (CA INDEX NAME)



●x HCl

RN 851049-10-0 CAPLUS
CN Methanone, (4-cyclobutylhexahydro-1H-1,4-diazepin-1-yl)[4'-(2-methyl-5-oxazolyl)[1,1'-biphenyl]-4-yl]-, hydrochloride (1:?) (CA INDEX NAME)

PAGE 1-A

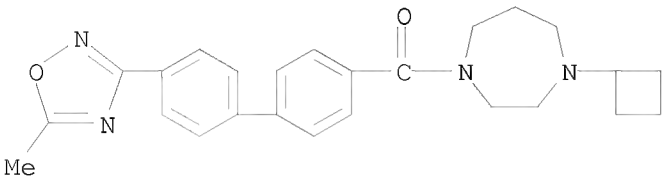


PAGE 2-A

●x HCl

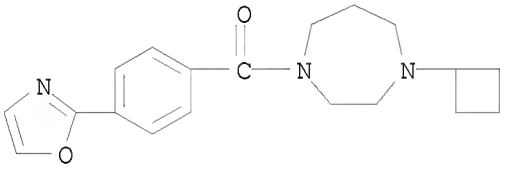
RN 851049-11-1 CAPLUS

CN Methanone, (4-cyclobutylhexahydro-1H-1,4-diazepin-1-yl)[4'-(5-methyl-1,2,4-oxadiazol-3-yl)[1,1'-biphenyl]-4-yl]-, hydrochloride (1:?) (CA INDEX NAME)



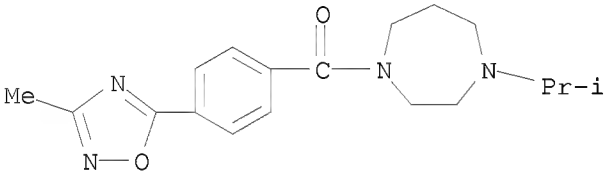
●x HCl

RN 851049-12-2 CAPLUS
CN Methanone, (4-cyclobutylhexahydro-1H-1,4-diazepin-1-yl)[4-(2-oxazolyl)phenyl]-, hydrochloride (1:?) (CA INDEX NAME)



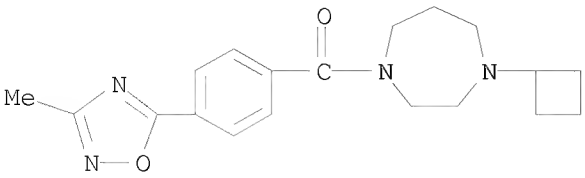
●x HCl

RN 851049-17-7 CAPLUS
CN Methanone, [hexahydro-4-(1-methylethyl)-1H-1,4-diazepin-1-yl][4-(3-methyl-1,2,4-oxadiazol-5-yl)phenyl]-, hydrochloride (1:?) (CA INDEX NAME)



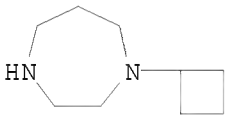
●x HCl

RN 851049-19-9 CAPLUS
CN Methanone, (4-cyclobutylhexahydro-1H-1,4-diazepin-1-yl)[4-(3-methyl-1,2,4-oxadiazol-5-yl)phenyl]-, hydrochloride (1:?) (CA INDEX NAME)

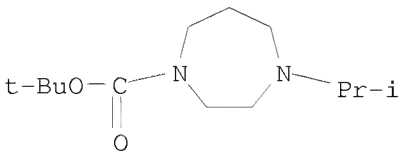


●x HCl

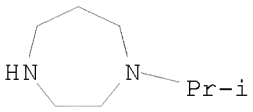
IT 851049-21-3, 1-(Cyclobutyl)hexahydro-1H-1,4-diazepine
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of (1H-1,4-diazepan-1-yl)(phenyl)methanones as histamine H3 functional antagonists for treating neurol. disorders)
RN 851049-21-3 CAPLUS
CN 1H-1,4-Diazepine, 1-cyclobutylhexahydro- (CA INDEX NAME)



IT 851048-46-9P, tert-Butyl 4-(isopropyl)hexahydro-1H-1,4-diazepine-1-carboxylate 851048-47-0P, 1-(Isopropyl)hexahydro-1H-1,4-diazepine dihydrochloride 851048-48-1P, tert-Butyl 4-(cyclobutyl)hexahydro-1H-1,4-diazepine-1-carboxylate 851048-49-2P, 1-(Cyclobutyl)hexahydro-1H-1,4-diazepine dihydrochloride 851048-52-7P, 1-Cyclobutyl-4-[[4-(4,4,5,5-tetramethyl-1,3,2-dioxaborolan-2-yl)phenyl]carbonyl]hexahydro-1H-1,4-diazepine 851048-55-0P, 1-(Isopropyl)-4-[[4-(4,4,5,5-tetramethyl-1,3,2-dioxaborolan-2-yl)phenyl]carbonyl]hexahydro-1H-1,4-diazepine 851049-13-3P, 1,1-Dimethylethyl 4-[[4-(1,3-oxazol-2-yl)phenyl]carbonyl]hexahydro-1H-1,4-diazepine-1-carboxylate 851049-15-5P, 4-[[4-(1,3-Oxazol-2-yl)phenyl]carbonyl]hexahydro-1H-1,4-diazepine
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of (1H-1,4-diazepan-1-yl)(phenyl)methanones as histamine H3 functional antagonists for treating neurol. disorders)
RN 851048-46-9 CAPLUS
CN 1H-1,4-Diazepine-1-carboxylic acid, hexahydro-4-(1-methylethyl)-, 1,1-dimethylethyl ester (CA INDEX NAME)

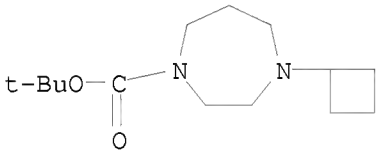


RN 851048-47-0 CAPLUS
CN 1H-1,4-Diazepine, hexahydro-1-(1-methylethyl)-, hydrochloride (1:2) (CA INDEX NAME)

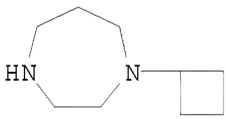


●2 HCl

RN 851048-48-1 CAPLUS
CN 1H-1,4-Diazepine-1-carboxylic acid, 4-cyclobutylhexahydro-, 1,1-dimethylethyl ester (CA INDEX NAME)

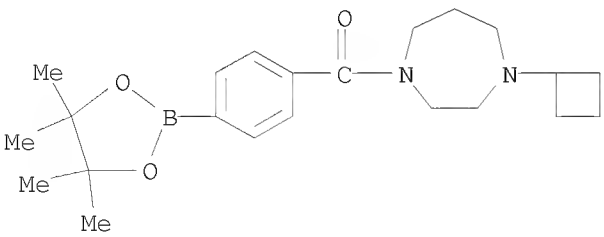


RN 851048-49-2 CAPLUS
CN 1H-1,4-Diazepine, 1-cyclobutylhexahydro-, hydrochloride (1:2) (CA INDEX NAME)

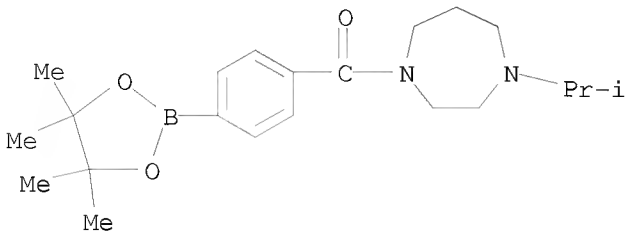


●2 HCl

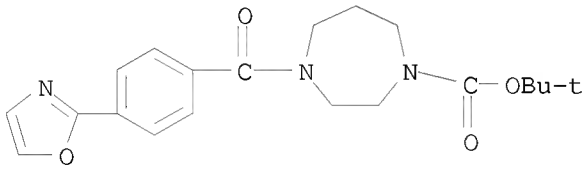
RN 851048-52-7 CAPLUS
CN Methanone, (4-cyclobutylhexahydro-1H-1,4-diazepin-1-yl)[4-(4,4,5,5-tetramethyl-1,3,2-dioxaborolan-2-yl)phenyl]- (CA INDEX NAME)



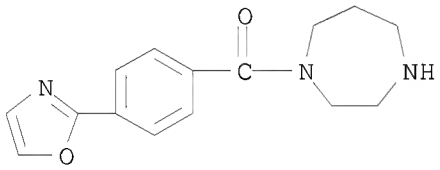
RN 851048-55-0 CAPLUS
CN Methanone, [hexahydro-4-(1-methylethyl)-1H-1,4-diazepin-1-yl][4-(4,4,5,5-tetramethyl-1,3,2-dioxaborolan-2-yl)phenyl]- (CA INDEX NAME)



RN 851049-13-3 CAPLUS
CN 1H-1,4-Diazepine-1-carboxylic acid, hexahydro-4-[4-(2-oxazolyl)benzoyl]-, 1,1-dimethylethyl ester (CA INDEX NAME)



RN 851049-15-5 CAPLUS
CN Methanone, (hexahydro-1H-1,4-diazepin-1-yl)[4-(2-oxazolyl)phenyl]- (CA INDEX NAME)



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REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT